How Do Forest Landowners Learn?
A Study of Resource Agency/Landowner Interaction in Northern California

Prepared for the
California Department of Forestry and Fire Protection

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Executive Summary

Background The Forest Stewardship program in California has lost funding, requiring the California Department of Forestry and Fire Protection to seek new ways of helping forest landowners practice effective management. In addition, the focus has shifted from promoting individual landowner projects to community watershed level activities. This leads to the questions, "How and why do landowners learn?" and "How can CDF facilitate the learning process?" The answers lie in understanding the four stages of learning and what triggers motivation, building partnerships with local organizations that serve landowners, and overcoming barriers to effective learning and partnership.

Adult Learning Adults have different learning needs than children. Adults have a greater need to know *why* they should learn something. Adult learning is tied more directly to the perception that knowledge will help them perform better or lead more satisfying lives. Adults have a deep need for self-direction. Thus, effective adult learning takes place when topics are important in their experience, rather than imposed by an external authority.

Stages of Learning A four-stage model is used to describe the learning process. The model progresses sequentially through the stages of ignorance, confusion, confidence, and mastery. The study of every unfamiliar subject begins with ignorance and may ultimately progress to mastery. When current forest management literature was examined using this model, two common shortcomings were noted. Either documents attempted to address several stages at once, or the earlier stages were left out entirely. These shortcomings can be detrimental to the learning process.

Language Patterns Language patterns can profoundly influence motivation to learn. Individual motivation traits determine which language patterns will be most effective in the presentation of ideas and information. The study discusses six types of motivation traits that can facilitate the presentation of information.

Design Principles Seven principles of designing text-based material are also presented. The use of these principles can have a significant impact on the acceptance and usability of information.

Building Local Capacity Resource agencies increasingly seek the assistance of local partners to encourage landowners to adopt best management practices. A series of workshops and interviews examined agencies, potential local partners, and landowners and their relationships from the landowner perspective. The workshops and interviews provided information regarding information needs, local issues, agency practices, and landowner attitudes.

Resource Agencies Four landowner perspectives regarding resource agencies stood out. Agency goals are confusing to landowners and sometimes appear to be in conflict with each other. This increases landowner suspicion and reduces "buy-in" to agency programs. Agency communication is often difficult to follow because it is highly technical and filled with jargon. Using language that landowners find appealing would reduce this difficulty. Agency practices are perceived as beneficial, or not, depending on the approach of local agency representatives. A number of suggestions for improving agency interaction at the local level were brought out. Regulatory and paper work requirements were seen as excessive burdens that provide no visible benefit.

Local Partners Viewpoints regarding Resource Conservation Districts (RCDs) and other potential local partners include these: RCDs are seen as viable local partners; however, they need agency assistance to be effective on the ground. Specifically, they need funding and technical assistance. Landowner conservancies often have strong local support and could become effective partners if properly approached. Coordinated Resource Management Plans (CRMPs) can be effective if they are not perceived as agency dominated. Other potential partners include local volunteer fire departments and Registered Professional Foresters.

Landowners Landowners' descriptions of their interest in learning management practices closely follow adult learning theory. Landowners have knowledge and experience that must be recognized for effective learning to take place. They have a strong need to control their affairs and their property. They need to understand *why* they should learn. The topic must be relevant. Results must be seen as attainable, physically and financially. They can be intimidated by too much technical detail or too many requirements. They seek specific advice and guidance, not general prescriptions.

Building Trust Building trust-based relationships is crucial to changing attitudes and practices on the ground. Local partners can play an important role in buffering landowners' inherent distrust of agencies. Local partners need access to agency personnel, clear lines of communication, and a sense of working toward a common goal. They often lack technical data that agencies could supply.

Agency Relationships Excessive regulation is counterproductive to building trust based relationships and to creating positive change. Instead, a cooperative relationship among agencies, local partners, and landowners should be established. Agencies should replace excessive regulation with the following: Agency policy that is responsive to local needs and priorities. Agency staff that perceives itself as advisors to potential local partners. Clear lines of communication between agencies and local partners. Agency assistance in developing watershed databases through technical data and funding.

Landowner Relationships Landowners saw some agency approaches to problems as short-sighted, not most beneficial, and sometimes harmful to their use of the land. On the other hand, they saw agencies as potentially very valuable when they advise, suggest, educate, and demonstrate, while allowing landowners to reach the final decisions for themselves.

Landowners believed that the time and expense of complying with regulatory requirements have the unintended effects of promoting poor management practices.

Local Partner Relationships Since local support is essential to making their efforts politically possible, RCDs may have to make community outreach a priority goal. This may involve Getting local newspaper coverage of their achievements, Making the benefits of their activities clear to local landowner groups such as the Farm Bureau and homeowner's associations, and Keeping local legislators informed of the community-wide benefits of their activities.

RCDs should take a more active role in educating urban residents and urban legislators about their conservation efforts and plans, and clearly show the connections between what they are doing and urban needs and values.

Table of Contents

Foreword

How Do Landowners Learn? This study began with the question: "How and why do landowners learn?" The question grew out of the need to create new approaches to building local capacity and self-sufficiency, increasing landowner use of desirable management practices, and spreading the concept of ecosystem management. Underlying that need was the assumption that reduced funding and staffing realities required changes in agency policy and in agency interaction with landowners.

Plus A Little More It grew into something more than that. As the study progressed, a number of issues arose that had a direct bearing on the initial question. The purpose of the study expanded to identify ways to produce positive changes in the agency's relationship with the public it serves and in the effectiveness of its program delivery. The material included in this report reflects that broader goal.

Direction #1: Learning Initial research moved in two directions. Investigation into adult learning theory produced useful theories about how adults learn, what motivational triggers are involved, and how to effectively present text based material. The investigators adapted a learning model, which described the stages of learning, to the situation of forest landowners as adult learners. This provided a framework for understanding in the field work which followed.

Direction #2: Demographics At the same time, research into the literature produced information regarding the demographics and attitudes of forest landowners as well as agency involvement in conservation, regulation and training activities. Useful reports, pamphlets, and books relating to conservation issues, the needs of local groups, and agency efforts to spread knowledge were found, and are included in the bibliography. Interviews were conducted with individual landowners and forestry professionals. In addition, a three hour workshop with forestry professionals was held. All these helped to frame the questions which were asked at landowner workshops in the field.

Why Not A Survey? The number of questions grew as the study progressed. Too many of these questions involved subtleties to attempt to get answers using a formal, written survey. In-depth workshops, where issues could be explored more fully, and responses could be probed, were chosen instead.

All About Workshops Day-long workshops were held in Yreka (northern California), Red Bluff (north central California), and Auburn (northern Sierra Nevada). These sites were chosen to compliment the activity of other research already in progress. Since the initial question had grown to include channels of distribution, along with learning styles and information needs, participants in these workshops were chosen based on their experience with Resource Conservation Districts (a possible distribution channel) and their knowledge of resource agency activities. All participants were recommended by RCD or local agency offices. About one-third of those invited gave up a Saturday to attend. A broad range of attitudes and experience were represented by these participants. They helped the investigators understand local issues and attitudes, provided suggestions regarding distribution channels, described the effects of current agency practices, and commented on the usefulness of materials.

Harvesting Ideas Participants' ideas were recorded, transcribed, and analyzed. Along with the

literature and theoretical research, their ideas became part of this report. The responses were wide-ranging. Comments built on each other, and included issues and concerns far beyond the initial questions. Since much of the material from the workshops seems important to an understanding of the similarities and regional differences among forest landowners, as much as possible has been included.

Major Themes This report is organized around three major themes: the first involves theories of learning, motivation, and presentation; the second describes workshop findings about resource agencies, RCDs and other potential local partners, and landowners; the third looks at the relationships among those entities.

How the Report is Organized Chapter 1 introduces the study and its methodology. Chapter 2 deals with learning theory, motivation and strategies for presentation of material. Chapter 3 deals with resource agencies, RCDs, and forest landowners individually. Chapter 4 examines current and potential relationships among them. Chapter 5 contains closing thoughts by the researchers.

Positive Change Some of the material from the workshops describes participant viewpoints that are critical of resource agency policies and practices. This material is not included to portray agencies in a bad light. It is not our intent (and, we think, not the intent of the participants) to disparage in any way the motives or intentions of any agency personnel. It is included because it exists “out there” and agencies overlook it in their dealings with landowners and local groups to their own determent. We intend all the information in this report, including criticisms, to be a springboard for positive change in the relationships agencies have with landowners and local organizations, and in their ability to effectively use their limited resources to encourage sustainable management of natural resources.

Chapter 1
The Forest Stewardship Programs: Introduction and Background

What is in this chapter? This chapter describes the background and scope of this study. Specifically, it briefly describes the Forest Stewardship Programs and discusses the focus of the research.

Stewardship Programs

Why have Forest Stewardship Programs? The California Department of Forestry and Fire Protection (CDF) manages the Forest Stewardship Program (FSP) and the Stewardship Incentive Program (SIP). These programs have four main purposes: Encouraging and assisting private forest landowners to actively manage their land and forest related resources; Providing opportunities for private landowners to protect environmental values while managing their land; Strengthening education and technical programs for owners of private forestlands; and Assisting Resource Conservation Districts (RCDs), Coordinated Resource Management Plans (CRMPs), watershed groups, homeowners associations, and landowner groups to deliver programs to the community of forest landowners.

How were they authorized? The Food, Agriculture, Conservation and Trade Act of 1990, known as the "1990 Farm Bill", authorized the Forest Stewardship Program (FSP) and the Stewardship Incentive Program (SIP) to stimulate enhanced management of non-industrial private forestlands. (CDF, July 1996)

What kinds of assistance do they provide? The Forest Stewardship Program (FSP) and the Stewardship Incentive Program (SIP) have different, but complimentary, goals: The Forest Stewardship Program (FSP) is designed to broaden the base of forestland under management by providing *technical assistance.* The Stewardship Incentive Program (SIP) provides *financial assistance* to forestland owners who implement practices not typically paid for by other assistance programs, such as Recreation, Wildlife and fisheries, and Riparian enhancement. (CDF, 1996)

What are the current funding levels? The federal allocation for SIP in 95/96 was reduced by 84% to only $61,200. It is unlikely that funding will ever return to the pre-95/96 levels. The result is that CDF can no longer fund the number of SIP projects it once did. (CDF, 1996)

How has the focus changed? "Historically, funding of SIP projects has occurred on a first-come, first-served basis. With few exceptions, a project's inter-connectedness to the community, as well as the larger ecosystem/environment, was not considered. However, what has become increasingly important to recognize in implementing the Forest Stewardship program is that: Wild fire, forest health, and other problems do not normally respect property boundaries. Individual landowners cannot solve all of their forest management problems without considering their community. Environmental problems are best solved by a community or coordinated resource management approach." (CDF, 1996)

"Along with the trend in reduced cost share dollars for individual landowners is an increasing interest in solving environmental problems by involving multiple ownerships and agen-

cies. Therefore, ***it is critically important*** [emphasis added] for the program to place its emphasis on providing education to groups, organizations, and landowners that will strengthen their independence and foster reliance on community networks and resources rather than future cost share dollars." (CDF, 1996)

Scope of the Study

This study was designed to focus on specific Research questions Geographical areas Organizations studied Methods of study

What were the initial research questions? The initial question to be addressed by this study was, "How and why do landowners learn?" Several other questions emerged as being equally important or more important. Among them are: What do landowners *want* to learn? How do information needs differ among landowners? How can communication between landowners and CDF be improved?

What area was included in the study? This study focused on Northern California. Specifically, it included participants only from the following counties: El Dorado Glenn Placer Shasta Sierra Siskiyou Tehema Trinity

Why was this area chosen? This area was chosen because it gave an opportunity to check landowners' perspectives in some of the most heavily forested areas of the state. In addition, two other studies were already underway on the North Coast and in the southern half of the state. Therefore this study compliments rather than overlaps with the other studies.

Which organizations were studied? This study focused on the relationship among the California Department of Forestry and Fire Protection and governmental agencies in general, resource conservation districts (RCDs), and landowners.

How was the study conducted? This study included the following: A review of the literature, Individual interviews with forest landowners and professionals, One focus group with forestry professionals, and Three focus groups with forest landowners and members of RCDs. Overall, in depth interviews were conducted with over 40 people representing a variety of viewpoints across the study.

Landowner Workshops

A primary source of information about landowner concerns, perceptions, and needs was a series of 1-day workshops conducted in three different areas of Northern California.

When, Where, and How Many? The workshops were conducted at the following times and places: Red Bluff February 8, 1997 8 participants Yreka February 15, 1997 7 participants Auburn March 1, 1997 10 participants

Who participated? Landowner workshop participants were contacted by letter and telephone based upon referrals from representatives of these local agencies: Resource Conservation Districts

(RCD) Natural Resources Conservation Service (NRCS) California Department of Forestry and Fire Protection (CDF) Approximately one third of the individuals referred to and contacted by the researchers actually participated in the study. It is important to note that this is not a random sample of landowners and this sample is biased because each landowner is Part of a self-selected group Actively involved with local agency offices or RCDs Likely to have a favorable impression of agencies and RCDs

What was the purpose of the workshops? The purpose of the workshops was not to hear from a representative sample of landowners in the area, but rather to probe, in depth, the attitudes, perspectives, and desires of landowners who had had direct and generally positive contact with RCDs, other landowner groups, and/or agencies within the study area.

How much did the landowners know about forestry? The participants reported the following levels of knowledge about forestry: These levels can be related to Stages of Leaning 2,3,4 in the following chapter. Participants were all involved in land management at some level and so did not directly represent Stage 1.

Focus Groups Self-Reported Levels of Forestry Knowledge	Red Bluff	Yreka	Auburn	Total
Not Reported	1	1	0	2
I know very little about forests.	2	0	0	2
I know a moderate amount about forests.	2	3	5	10
I know a lot about forests, but not from formal training.	0	2	2	4
I have had one or more college courses in forestry-related subjects.	2	0	0	2
I have a bachelor's degree in forestry.	0	1	3	4
I have an advanced degree in forestry.	1	0	0	1
Total	8	7	10	25

How were the workshops conducted? Workshops were conducted on Saturdays starting at approximately 8:30 AM and lasted until between 3:00 PM and 5:00 PM. Below is a list of topic areas explored during the workshops: How your RCD works with local landowners. How your RCD plans projects, activities, etc. Information you use for planning. How you manage projects. How public agencies help or hinder your RCD. How CDF could assist your RCD. How nonresident and new landowners can be reached. Workshops were recorded on audio tape to facilitate documenting key points after the workshop. Workshop participants were promised non-attribution of their words. They were told that their ideas would be included in a report.

How did participants respond? All participants, including some who originally had misgivings about participating, were open, candid, and thoughtful in their responses to researchers' questions. They gave generously of their time and provided valuable ideas and insights.

Chapter 2
Learning, Motivation, and Information

What is in this chapter? This chapter is about research that provides a conceptual framework for answering the general question: "How and why do landowners learn?" There are several related areas of research important to this question. They are: What is important to know about adult learning? Where does learning start and where does it lead? What triggers motivation to learn about a subject? How can information best be presented? This chapter also suggests some application of the research.

This chapter contains the following sections: Theory Section A Application Section B

What else is important? This study also included a review of literature related to the following "content specific" areas: Forest landowner attitudes, motivation, and management practices. Landowner demographics Agencies involved in resource conservation Previous surveys Information about these topics provided some of the background necessary for the researchers to plan and conduct workshops with landowners.

Where can I get more information? The bibliography contains a list of works consulted.

Section A
Theory

How Do Adults Learn?

Becoming better stewards of the land involves learning. The best way to learn, however, is not necessarily *to be taught*. Adults have different learning needs than children do.

What are the principles of adult learning? Malcolm Knowles (1987) outlined the following assumptions of the adult learning model: Adults have a need to know why they should learn something. Adults have a deep need to be self-directing. Adults have a greater volume and different quality of experience than youth. Adults become ready to learn when they experience in their life situation a need to know something or a need to be able to do something in order to perform more effectively and satisfyingly. Adults enter into a learning experience with a task-, problem-, or life-centered orientation to learning. Adults are motivated to learn by both extrinsic and intrinsic motivators.

In what areas do they apply? The application of the principles of adult learning has implications for the following areas: Climate setting Creating a mechanism for mutual planning Diagnosing the

participant's needs Translating learning needs into objectives Designing and managing a pattern of learning experiences Evaluating the extent to which the objectives have been achieved

Why is this important? Adults cannot be taught effectively in the same way children are taught. In particular, "diagnosing participant's needs" can be done in the context of the four stages of learning described next.

What Are the Four Stages of Learning?

Because one of the key questions to be addressed by this study is "How and why do landowners learn?" it is important to have a conceptual framework for the learning process. One simple but useful model follows.

What are the Four Stages of Learning? Every person who learns goes through four stages of learning. (O'Connor and Seymour, 1993) These stages are described in the following table. Learners at different stages of learning have different needs. These stages provide a conceptual framework for meeting those needs.

	Unconscious	Conscious
Competent	**Stage 4: Mastery** Unconscious Competence Skill has been fully integrated and is habitual. Can do the task without thinking about intermediate steps "I can just do it."	**Stage 3: Confidence** Conscious Competence Full conscious attention is still needed to carry out an activity. The skill is not yet fully integrated and habitual. Able to think through a task step-by-step and do it "I know that I know."
Incompetent	**Stage 1: Ignorance** Unconscious Incompetence We are unaware of a skill. Un-aware that one cannot do a task. "I don't know that I don't know."	**Stage 2: Confusion** Conscious Incompetence Conscious attention is on the task and the results are variable. This is the stage when the learning rate is the greatest. Aware of the task, but cannot do it. "I know that I don't know."

Why is this important? This model can be used to address the needs of the various categories of landowners. Stage 1 landowners are unaware of the potential benefits and practices of manage-ment. They must be introduced to the concept of forest land management through simple, repeated "marketing" efforts. Stage 2 landowners are aware that they may play a role in managing their land

for long-term benefits , but need extensive guidance in fulfilling that role. Stage 3 landowners are able to understand and appreciate good management practices, but need specific, technical support of their activities. Stage 4 landowners have become effective stewards of their land and can serve as role models for both agencies and other landowners.

What Triggers Motivation?

Not all people are motivated in the same way. Some schools of thought maintain that it is impossible for one individual to motivate another. Essentially, all motivation comes from within. However, an understanding of what triggers motivation, and how to activate those triggers, could lead to a more effective presentation of the concepts of ecosystem management among landowners.

Is it manipulation? The importance of understanding motivation traits lies *not* in being able to manipulate people into doing things they would not ordinarily want to do. Rather, it lies in being able to present ideas in such a way that *minimum energy* is required on the part of the listener to effectively hear the message. It lies in being able to overcome barriers created by how the ideas are *presented*, rather than barriers created by the ideas themselves. Thus, the listener's energy can then be used to understand and evaluate the ideas being presented instead of being used to overcome barriers created by language that does not match the listener's preferences.

What are the motivation traits? Charvet (1995) describes six categories of motivation traits related to how different people trigger their motivation. These traits are related to what language will best capture the interest of people with different motivation traits. The traits and their patterns are as follows:

Motivation Traits	**Motivation Pattern**
Level – "Is about what will get you going and make you think."	Proactive vs. Reactive
Criteria – "Those words which incite a physical or emotional reaction, HOT BUTTONS."	Values
Direction – "Either they move toward a goal, or away from problems."	Toward vs. Away From
Source – "Does the person find motivation in external sources, or in internal standards and beliefs."	Internal vs. External
Reason.– "Is there a continual quest for alternatives, or is there a preference to follow established procedures?"	Options vs. Procedures
Decision Factors.– "Does the motivation come from a search for 'difference' or 'sameness'?"	Sameness vs. Sameness with Exceptions vs. Difference vs. Sameness with Exception and Difference

Examples of Influencing Language

This section gives examples of the types of language that might be most appropriate in presenting information and ideas to forest landowners with various motivation traits. Keep in mind that the purpose of using influencing language is not to "trick" or "persuade" someone to do something; the purpose is, rather, to present ideas in a way that focuses listener's energy on the content of the message.

Level What language might appeal to a proactive or reactive audience learning about fuels reduction? Since the majority of the audience may be equally proactive and reactive in a given context, both types of language may need to be used to influence them. **Proactive –** Wildfire is a real and present danger in your area. You can take positive steps to protect your home and surroundings. Create a defensible space now; don't wait for the fire season. We can show you how to take control of the situation. **Reactive –** Have you considered what might happen if a wildfire occurred in your area? Think about this: if a wildfire should burn your property, your buildings could be replaced but how long would it take to replace your trees? Current research indicates that 100 feet of defensible space may be needed on level parcels, and up to 400 feet downslope on steep parcels. This may be the right time to analyze how you can create a defensible space on your property. We can assist you in developing a plan to increase your safety and to preserve the forest setting where you live.

Criteria Criteria are not easy to illustrate because they are very personal. However, Charvet (1995) gives us the following description of influencing language for this motivational trait. "Unskilled sales people just *pitch their product* (usually using their own Criteria) without much regard to what their prospective customer actually wants…Many market researchers investigate people's Criteria so that the exact phrasing of an advertising campaign can match what is most important to the groups they wish to influence…If you want to get and keep someone's interest you will need to link what you are proposing with their Criteria. You will need to be careful to deliver what you promise when you use someone's Criteria to persuade them. Otherwise their disappointment and anger will likely be directed at you."

Direction What kinds of Direction triggers would motivate a person to come to a resource agency or RCD for technical advice or financial assistance? **Toward –** New landowners might come because they have a goal, a mental picture, of what they want their property to look like. They may be looking for ways to realize their goal. A rancher might come because he wants to increase the quality of grazing for his cattle, or increase his hay production. A timber owner might want to increase the production and profit of his operation.

Words and phrases that appeal to people with a Toward orientation in a given context include: "attain; obtain; have; get; include; achieve; enable you to; benefits; advantages; here's what you would accomplish" (Charvet, 1995) **Away From –** A homeowner may seek help with fuels reduction in order to avoid the possibility of having his property burned to ashes. Someone planning a timber harvest might want help in filing the paperwork in order to avoid a fine. A rancher might want to solve the problem of how to get rid of chaparral on his land. A farmer might want to know how to install a fish screen to prevent having his water supply cut off.

Words and phrases that appeal to people with an Away From orientation in a given context include:

"won't have to; solve; prevent; avoid; fix; not have to deal with; get rid of; it's not perfect; let's find out what's wrong; there'll be no problems" (Charvet, 1995) Sometimes an Away From orientation may initially sound like a Toward orientation. For example, people may want "freedom," which sounds like a toward orientation. However, what they may actually want is freedom *from* something, rather than freedom *to do* something. That makes the orientation "Away From." It is crucial to ask Direction questions more than once to get an accurate idea of what direction actually motivates an audience (even a single person). The first response is usually Toward, regardless of their actual pattern. Agencies often tend to have a Toward orientation. They have a vision of how things could or should be and they have "good science" to back it up. Landowners often tend to have an Away From orientation. They want to avoid obstacles or solve problems that stand in their way. The important thing is not *what* they plan to do but *why* they are motivated to do it. Understanding the Direction of their motivation makes it easier to get and hold their interest.

Source When presenting a new management practice, how could the information be phrased to an Internal or External audience to get their attention? **Internal –** You might consider the advantages of using this practice. If you try it, you can decide for yourself if it will work for you. Here is some information to help you make a decision. If you need more information, contact these people. **External –** Experts at the university have done studies to show that this practice will have quite an impact. Once you try this practice, your neighbors will notice the improvements and you will get good feedback. I strongly recommend you give it a try. These articles will show you what the experts think. Many long-time landowners have an Internal orientation toward their land and management practices. They want to make up their own minds about which practices to use. They are looking for information and will not be swayed by external pressure (in fact, it may make them resistant). Newer landowners may have a more External orientation, since they may feel less certain about their own knowledge. Since the majority of the audience will be either one or the other orientation in a given context, care in wording is essential in communicating with them.

Reason What language would be most effective in explaining the steps in thinning a stand of timber to an audience composed of Options or Procedures people? **Options –** There are many ways to go about this. Here is why it is important. Let's look at some of the alternative methods you might use. You may find it a challenge to combine several of them in ways that suit you best. You might come up with new ideas that work well for you. There are no rules for doing this; come up with the ways that work best for you. If you want to try something different, let me know and we may be able to make an exception in your case. **Procedures –** The correct three step procedure for thinning a stand to reduce the hazard of wildfire is: First, remove fuel by thinning crowded trees to leave at least 10 feet between crowns on level ground, and up to 30 feet on steep slopes. Second, prune shrubs, saplings and the lower branches of trees to more than the recommended distance to allow for future growth. Finally, dispose of the shrubs and branches you have cut to reduce the fuel load.

Audiences will be mainly either Options or Procedures in a context. It may be necessary to use both sorts of language to appeal to an unknown audience. Options oriented people will want to know what and why. Procedures oriented people will want to know how.

Decision Factors The following influencing language for each of the four patterns in this trait is quoted from Charvet (1995). **Sameness** – The same as; as you already know; like before; identical **Sameness with Exception** – More; better; less; the same except; evolving; progress; gradual im-

provement; upgrade **Difference** – New; totally different; completely changed; switch; shift; unique; one of a kind; brand new **Sameness with Exception and Difference** – use *both* Sameness with Exception *and* Difference language Since the majority of the population has a Sameness with Exception orientation toward work, that influencing language may be most appropriate for general audiences. Specific questions may need to be asked to understand the orientation of an individual.

Why is this important? It is possible, as described by Charvet (1995), to introduce ideas with language that appeals to people with each combination of motivation traits and patterns. The use of appropriate language can be effective whether "marketing" an idea or introducing a lesson in a classroom. Matching language makes it more likely that a message will be heard.

What is the Best Way to Present Text-Based Information?

Much of the information available to landowners will be printed material including both text and graphics. The design of this material will have a significant impact on its acceptance and usability. One effective form of presenting text-based information is known as structured writing.

What is the purpose of structured writing? One structured writing approach described by Horn (1993), a pioneer who began studying the field in 1965, was based upon research designed to answer the following question: "How can we make learning easier and quicker for people in complex, information-rich environments?"

What are the principles of sequencing and formatting? The most visible aspect of structured writing is its sequencing and format. The principles of sequencing and format are as follows:

Principle	**Description**
Chunking	Group information into manageable chunks.
Relevance	Place like things together. Exclude unrelated items from each chunk.
Consistency	Use consistent terms within each chunk of informa tion terms in both the chunk and the label organiza tion
Labeling	Provide the reader with a label for each chunk of information.
Integrated Graphics	Use tables, illustrations, and diagrams as an integral part of the writing.
Accessible detail	Write at the level of detail that will make the docu ment useable for all readers.
Hierarchy of chunking and labeling	Group small chunks around a single relevant topic. Provide the group with a label.

Why is this important? Research has shown the following benefits of structured writing, specifically the form of structured writing known as Information Mapping: 83% decrease in first draft development time 75% decrease in document revision time 54% decrease in number of words in documents 10% to 50% decrease in reading time 38% increase in use of documentation

Section B
Application

Strategies to Promote Ecosystem Level Management

This section contains recommendations regarding the design and delivery of materials to support landowner learning about forest ecosystem strategies and practices. These strategies are in alignment with the Four Stages of Learning. Training materials reviewed for this study displayed two shortcomings: They tried to address too many stages of learning in one document, or They did not address the initial stages of learning. Therefore, these materials do not appeal to learners who are in the initial stages of learning. Using the following strategies for each stage should help eliminate these shortcomings.

Stage 1 Strategies

Goal Stage 1 strategies are designed to help landowners move from unconscious incompetence to conscious incompetence. The goal is to replace ignorance of management issues with awareness and desire to learn more.

Questions to Be Answered Materials should help the landowner answer the following questions: How does this affect me and my property? Why should I care about this?

Format and Content Materials should: Be attractively formatted Be brief Be easy to read Be free from technical terms and jargon Be pictorial or graphic (not wordy) Describe issues, problems and implications Provide pointers to additional, more detailed information Appeal to all motivational triggers identified in the LAB (language and behavior) Analysis model

Distribution Options Materials could be distributed: In local newspapers, as articles about the importance of management practices and "Success" stories In a general brochure describing Management opportunities Landowner responsibilities and Threats to the land In introductory brochures about specific threats, such as Wildfire or flooding As handouts during door-to-door canvassing of neighbors As videos to be used at local meetings or as part of television presentations At local government agency offices In booths at local fairs In Chamber of Commerce offices In mailings from RCDs to members or new landowners Through real estate brokers and title companies

Stage 2 Strategies

Goal Stage 2 strategies are designed to help landowners move from conscious incompetence to conscious competence. The goal is to enable landowners to eliminate confusion and take action with help from others.

Questions to Be Answered Materials should help the landowner answer the following question: What should I be doing? What benefits will doing it bring to me?

Format and Content Materials should: Be comprehensive and accurate, describing each step in just enough detail to make it clear to uninformed owners Describe what to do and what to avoid, *not* how to do it Be well illustrated (before - after) Describe the practices and relate them to direct benefits to owner Indicates the implications for the larger ecosystem/watershed Include a glossary of technical terms Provide an index and pointers to additional information Relate each practice to specific threats or opportunities

Distribution Options Materials could be distributed: As a "best practices" manual available to owners As handouts at field trips or seminars As pamphlets related to specific threats or opportunities, such as How to Protect Against Wildfire? Thinking of Doing a Timber Harvest? So You Want to Build a Road At local agency offices At RCD offices

Stage 3 Strategies

Goal Stage 3 strategies are designed to help landowners move from conscious competence to unconscious competence. The goal is to help landowners build confidence and move toward mastery.

Questions to Be Answered Materials should help the landowner answer the following questions: How do I do a particular practice? What are the specific needs, skills, permits, etc. required for each step of the task?

Format and Content Materials should: Be detailed enough to give landowners confidence that they could accomplish the practice Be well-illustrated (step-by-step) Contain an index and a glossary of technical terms Describe alternative ways to perform each step, if appropriate Include a section on how to get technical assistance Include references to other sources of information

Distribution Options Materials could be distributed as: "How to" manuals for each practice, such as popular books on home or yard maintenance Texts or handouts in University Extension or California Association of RCDs (CARCD) short courses Something that could be purchased from RCDs

Stage 4 Strategies

Goal Stage 4 strategies are designed to help landowners maintain mastery of theory and practices while helping others move toward mastery. The goal is to create more leaders, trainers, and teachers at the landowner level.

Questions to Be Answered Materials should help the landowner answer the following questions: How can I keep my knowledge up-to-date with new research? How can I share what I know with neighbors and others in order to increase the effectiveness of these practices in the community or ecosystem?

Format and Content Materials should: Provide access to, and information about the latest findings and practices Describe ways to increase local involvement in management practices Describe ways to organize cooperative groups of landowners Include references to successful local efforts in other areas of the State and the world Show how to make such efforts politically possible, practically possible, and how to implement them.

Distribution Options Materials could be distributed: As technical documents or through technical advisors In workshops and seminars devoted to training local leaders As workbooks/references for increasing local involvement

Chapter 3
Resource Agencies, RCDs, and Landowners

What is in this chapter? This chapter explores workshop findings about resource agencies, RCDs, and landowners primarily as individual entities. This chapter provides information that is closely tied to the next chapter, which explores the relationships among these entities.

This chapter contains the following sections:

Section A
Resource Agencies

What is in this section? This section presents workshop findings to picture both state and federal resource agencies from the viewpoint of landowners.

Agency Goals

Finding Workshop participants did not clearly understand the goals and missions of State agencies that affected them and their land. One agency's goals may appear in conflict with the goals of another agency. Participants in all groups expressed the belief that agency goals did not include the best interests of landowners.

Discussion State agencies often appear to have narrow, arbitrary and conflicting goals. The goals appear to be created within each agency without reference to other agencies or local landowner interests. Every workshop group expressed the belief that State resource agencies need to develop a common, inclusive vision of the conditions they are working toward, "a desired future state." It seemed clear that these conditions could not be effectively stated for the state as a whole. A set of regional goals, developed together with local interests would be more concrete and relevant. Local agency personnel and representatives of RCDs need to be included in the vision development process in order to create acceptance and "buy-in." One example of an agency not including the views of others is the CDF Sustainable Landscapes plan, which did not include input from RCDs or the Department of Water Quality.

Conclusion As long as agency goals are not expressed in clear terms and their meanings for landowners remains ambiguous, there will be insufficient voluntary cooperation and buy-in to create effective management at the watershed level. Landowners and local landowner groups will be more responsive to a unified set of goals, relevant to their region, which they help to define.

Recommenda-tion We recommend that each agency initiate an open strategy for setting clear collaborative goals within their agency and among state agencies based on a regional approach with participation from local landowners.

Agency Terminology

Finding Agency terminology is often loosely defined and filled with jargon. Terms such as conservation, stewardship, watershed, and management can have a number of meanings. Landowners are unsure of how such terms, used by agency personnel, affect their land use. This ambiguity creates confusion in landowners' minds and raises suspicions that there may be unwanted side effects of their participation.

Discussion Two examples will serve to illustrate the confusion in participants' minds regarding terms often used by agencies: "stewardship" and "conservation." Landowners may have a personal definition of these terms, but they may disagree among themselves about the meaning and the practices the terms imply. They may also be unsure how a particular agency defines each term and what implications the agency definition may have for existing management practices. For example, in one group a participant described "conservation" (negatively) as preserving the landscape by returning it to the state it was in before white settlement, and "stewardship" was defined as "best practices" management. Another participant equated "conservation" with management, and "preservation" with neglect. When they are unsure of what the implications of a term are, it is natural for a landowner with an "away-from" orientation (see Chapter 2) to perceive a threat. This is one of several factors that contribute to landowner reluctance to participate in agency programs or to view agencies as allies toward a common goal. The following is an example of a set of definitions that might provide more consistency of interpretation than the terms "conservation" and "stewardship" currently provide.

Term	Definition	Practices	Examples
Preservation:	To keep a site or ecosystem safe from harm, and to maintain it as nearly as possible in an unaltered state.	Intervene to preserve an undisturbed site or let nature take its course on a disturbed one.	Saving old growth redwood stands or allowing fire sites to redevelop without human intervention.
Restoration:	To repair or bring back to its former condition the ecological balance of an area that had been upset by economic activity or natural disaster.	Positive action on the ground to reverse damage to an ecosystem and to return it to its former healthy balance.	Riparian stream bank restoration and fencing or replanting after a wildfire.
Mitigation	To reduce the impact of economic activity on an ecosystem either by using less intense methods or by setting aside an alternate site.	Practices to make economic activity possible while reducing the overall negative impact of that activity.	Setting aside alternative sites for habitat to replace sites destroyed by development or planning to reduce the impact of a timber harvest by using less intensive practices.
Management	To carry out day-to-day operations in such a way as to maintain the productivity of the resource and allow sustained operation.	Planning and action to maintain and improve the productivity of a resource with the goal of utilizing that resource over a long period of time.	Limiting grazing on a range, creating fire breaks in forests, or planting to encourage beneficial wild life.

Any one of these definitions might be in the mind of someone using the terms “conservation” or “stewardship,” yet the practices they see as appropriate to those terms may vary widely depending on which definition they choose. Without probing, there is no way for the listener to know what the speaker or writer really means and this causes confusion in the listener’s mind.

Conclusion It would be helpful if basic terms, now loosely used by agencies and landowners, were carefully defined in terms of their meaning and implications. Clear definition and consistent usage would ease landowner concerns about hidden implications and surprises.

Recommenda-tion That agencies carefully examine commonly used terms, develop more rigorous definitions for themselves, and communicate these definitions among agencies and landowners.

Agency Practices

Finding Agency practices are seen as arbitrary and inconsistent from region to region.

Discussion Agency practices appear to be shifting over the past 10-12 years from informing, advising and assisting to regulating and inspecting. Practices are also governed by the agency’s interpretation of the legislative mandates they receive. Finally, they are carried out based on the viewpoint of local agency representatives. Thus, practices vary among agencies, within agencies, and from region to region, depending on the perspective of local agency personnel. The difference between an agency’s stated goals, promoting stewardship for example, and an agency’s practice causes confusion and distrust among landowners. In every area some agencies are seen as helpful; others are associated with problems and conflicts. (Most agencies did not have a consistently good or a consistently bad reputation.) Agency practices are sometimes seen as self-serving. For example, the emphasis on regulation is seen as a way to maintain staffing levels. Some participants stated the belief that CDF could justify regulators and inspectors to force compliance but could not justify the budget for service foresters to advise and assist landowners. The differences in attitude toward a given agency from region to region are indications of differences in the practices of local personnel. Some local agency personnel were seen as “trusted advisors”, others were seen as thinking “they are smarter than we are.” Some battalion chiefs were seen as helpful; others were described as only wanting to fight fires and having no sense of the management issues involved.

Conclusion These perceptions should not be taken as facts, rather as indications of difficulties all agencies need to address. Practices must be clearly understood and consistently implemented in order to build landowner’s commitment. Local agency personnel may need further training in the technical and human relations aspects of their jobs.

Recommenda-tion We recommend that agencies review their practices to determine their effectiveness region by region. This review should take into account landowner perspectives as well as agency requirements in each region. Workshop participants made a number of useful suggestions regarding ways to create better interaction with local landowners. These are presented in Chapter 4, Section B, page 53.

Section B
Resource Conservation Districts

What is in this section? It is difficult and perhaps inappropriate to make general statements about RCDs because the needs of each RCD depend so much on its stage of development and the local situations in which it is involved. Five major areas of concern did come up in the groups. Two are discussed in this section. They are Watershed analysis Technical information The other areas of concern are discussed under agency relationships with RCDs, beginning on page 47. This section discusses findings regarding the nature and needs of RCDs as they were described by workshop participants and interviewees.

RCDs Have Unique Characteristics.

Finding Resource Conservation Districts (RCDs) differ from most other organizations and associations that represent landowner interests. They also differ from each other in several important ways. Among them are Activity level Constituents Environment Purpose Size

Discussion There are currently 103 RCDs in the state. This number is declining as RCDs evolve and consolidate, often along county lines or within a sphere of influence. Of the approximately 70 RCDs that are currently active, fewer than 40 contain significant amounts of forest or woodland within their boundaries. The others are either strictly agricultural, urban, or inactive. While other landowner organizations have offices within the boundaries of these woodland RCDs, RCDs seem to have the broadest base of representation and are not as focused on single issues or special interests. RCDs are special districts, much like fire or water districts, and thus have administrative and financial authority that the other local organizations do not have. RCDs are landowner-based organizations. Their directors are elected or appointed from within the RCD boundaries. In the area we studied, RCDs were at many different stages of development. Some were stagnant; others were beginning to reactivate in response to perceived opportunities or threats; still others were very actively working. Regardless of their stage of development, RCD members clearly see their organizations as having a feel for the land and the interest groups on it. They see themselves as representatives of local interests, as initiators of community education, as project planners and coordinators, but not as implementers of activities. They believe their organizations are respected by local people who have had contact with them. They work very carefully to maintain that respect. There is a perceived shift in RCD primary mission from soil conservation or agriculture related issues to broader resource issues such as water quality and availability, fire protection, and wildlife habitat. RCDs in urban areas are becoming more active in erosion control, water quality issues, and education. To paraphrase one workshop participant, there are only two paths for an RCD today: either become more involved or not be involved at all. Though many RCDs engage in similar activities on the ground, they vary widely in their perceived purpose for existing. Purposes depend upon local issues and needs, and may include protecting landowners from government encroachment, citizen education, community outreach, and forest health. These differences affect which activities they pursue, how they operate within their boundaries, and how they view agency involvement. RCDs that appear to be controlled by agencies are seen as less effective and less trusted by landowners than those which maintain their autonomy and local community focus.

Conclusion Each RCD has a unique relationship to the landowners in the areas it serves. These relationships represent a strength and offer the possibility of being an effective link between state agencies and landowners. Any relationship between a state agency and an RCD must respect the nature of the relationship between the RCD and the landowners.

Recommenda-tion CDF should begin to establish cooperative relationships with local RCDs that encompass significant amounts of forestland or woodland. These relationships may take the form of partnership agreements or memoranda of understanding. They should reflect local issues and the needs of the specific RCD.

Characteristics of Effective RCDs

Finding The following organizational characteristics of effective RCDs were suggested by an interviewee and were presented at some of the workshops for comment. There was general agreement that they are realistic. The RCD has a full set of board members and vacancies are promptly filled. The board meets regularly, at least monthly. The RCD has a written annual plan and a description of problems to be addressed. The RCD reports annually, or more often, on its activities, its successes, and its plans to local stakeholders and political representatives.

Discussion RCDs that meet these requirements can be assumed to have local support and individual commitment. Therefore, they can be effective as local coordinators and channels of communication. RCDs which do not meet these requirements may be in a building phase and may need assistance to reach this level. In particular, a number of RCDs have not completed ecosystem problem descriptions and plans. They may benefit significantly from assistance. Each workshop described annual activity reports as something that could be done more effectively, with benefits for the community and the region, as well as for their organization. Participants in all groups felt that their RCDs could increase their visibility and help political leaders understand the larger issues in their area by increasing the flow of information about their activities and plans.

Conclusion These requirements may be an effective way for RCDs and agencies to measure the stage of development of an RCD. They may provide both with goals to move toward.

Recommendation RCDs that do not have these characteristics should work to develop them.

RCDs Need Funding.

Finding Funding was a major concern for RCDs in every workshop. Lack of funds reduces their effectiveness. If the only funds are tied directly to work on streams, it is difficult to implement important projects in upland areas. If funds are only available for fuels reduction, flood protection suffers. Every RCD needs a source of long-term funding simply to function.

Discussion The primary funding issue seems to be the lack of a dependable cash flow to maintain staff who can respond to landowner questions, monitor projects and conduct educational activities. Without staff focus, RCDs are not able to function as local information hubs. Even with a stable base of funding, RCDs do not have resources to do all the work they want to do in their watershed. Whether their funding is from project grants, interest on investments, or taxes, they all felt that additional funds would increase their effectiveness. They believed that increasing their

effectiveness would pay back substantial long-term benefits. They also felt that tasks they undertake to advance agency goals should be underwritten by the agencies. Some of the activities for which funds could be used include the following: Hire a respected, technically competent coordinator to handle the affairs of the office, manage projects, sponsor educational activities and provide information to landowners. Develop watershed level plans that would give it an overview and a set of priorities regarding issues in the whole watershed. Implement programs to benefit the watershed and develop demonstration projects for landowners. Administer training programs at all stages of learning, across a broad range of stakeholders. Participate more actively at the regional and state level.

Conclusion RCDs that lack a reliable funding base exist from grant to grant and project to project. This reduces their ability to maintain a long term focus on important local issues. Their ability to function effectively is tied directly to their financial health.

Recommenda-tion We recommend two approaches: (1) Some RCDs have developed very creative ways of funding their operations. These creative approaches should be collected (perhaps through the California Association of RCDs (CARCD)) and made available for all RCDs to consider. They may not be applicable to another RCD because they come out of a unique situation, but they may stimulate thinking which produces new ideas. (2) Resource agencies may find that providing seed money to RCDs in a development stage pays dividends in agency influence within local communities.

RCDs Need Technical Information.

Finding RCDs often find themselves as hard pressed as local landowners to find agency persons to contact for technical information. They are frustrated by the lack of material to provide landowners in response to questions, and the difficulty of finding information sources.

Discussion In order to be effective local information hubs, RCDs need the following: A library of information regarding management practices appropriate to each of the stages of learning, not just pamphlets Introductory material that could be distributed to new or uninformed landowners Best management practices information Technical “how-to” information including step-by-step procedures and alternative approaches Funding to maintain this information and pass it on to landowners

Conclusion RCDs would be much more effective as local points of contact with landowners if they had a broad range of materials and funding sources available.

Recommenda-tion We recommend that agencies focus on making effective RCDs local points of contact to which landowners can be referred. Agencies should provide RCDs with information, agency contacts, and financial assistance to make this happen.

Who Else Could Be Partners for Spreading Knowledge?

Finding Three other groups were identified in this study who might potentially become agency partners in spreading forest practices information. These are Volunteer fire departments in rural areas, Landowner-based conservancies, and Registered Professional Foresters. All were seen

by participants as valuable and underutilized channels for providing resource management information to landowners.

Discussion Local volunteer fire fighters are seen as respected members of the community. They could help landowners learn about fuels management issues and programs, and could provide specific suggestions regarding beneficial actions on a particular site. In working with them, it is important for agencies to treat them as partners and not "take over" their initiative. Participants thought some CDF fire officials treated volunteer fire departments as stepchildren, and interacted with them in disrespectful and uncooperative ways. One participant commented that some CDF fire chiefs have not been team players. A basic attitude shift on the part of CDF may be needed to bring local fire fighters into active partnership. Conservancies exist in a number of areas. Where conservancies exist, they often have strong local support and cooperation. They often have a bias against agencies, however, we have heard examples of cooperative and mutually beneficial relationships. In all groups, Registered Professional Foresters were seen as valuable and underutilized resources for bringing technical ideas and program information to landowners. They interact directly with many local landowners who have no ties to RCDs or other local groups. They provide assistance with complex activities. They were seen as having knowledge and understanding of local issues and cumulative impacts that goes far beyond an individual owner's parcel. This could be helpful in gaining an overall understanding of an area. They often feel disregarded by agency representatives. It is important, in working with them, to treat them as partners and not simply to regulate them.

Conclusion These three potential partners offer the possibility of additional important channels of communication with local landowners. They should not be overlooked by agencies.

Recommenda-tion Agency policy regarding these groups should be reexamined from the perspective of creating effective partners to spread knowledge of forest management practices.

How Do Conservancies and CRMPs Fit In?

Finding We did not have a deep understanding of landowner-based conservancies at the beginning of this study. We gained more insight into several of them during the workshops, and we found they exist in many parts of the state. Where they exist, they often have strong local support. Coordinated Resource Management Plans (CRMPs) are really a process and groups that use the process often take on the name. While they are important contact points, they are sometimes perceived as agency dominated and, if so, they are viewed with suspicion by landowners.

Discussion Deer Creek and Mill Creek Conservancies were started in reaction to the threat of a "wild and scenic rivers" listing. Landowners were determined to keep local control of what was done on the land and avoid agency "baggage." They function much like CRMPs but are adamant about not being called that. Because of the perceived common threat, the landowners banded together. The affect has been to achieve the goals of agencies and environmentalists while maintaining local control. The impression we had from participants is that it was a "win-win" for all sides. Landowners with a common focus can be effective in conservation efforts and can develop good rapport with local agency people. Conservancies are also distinguished from CRMPs by being able to bring contentious issues to a vote rather than wait for consensus, allowing them to move forward faster. CRMPs, on the other hand, are not always a "win-win." Some CRMPs are perceived as agency dominated, which reduces landowner "buy-in" and makes them relatively ineffective. One

thing which influences this perception is the proportions of agency personnel versus landowners who attend CRMP meetings. One participant compared two CRMPs that he was involved with. One met during the workday when all the agency staff were able to attend and landowners who worked could not attend. The other met in the evening when landowners were able to attend and had great land-owner participation . The second CRMP was seen as more “grass-roots”, and more effective in getting community support and participation for its projects.

Conclusion When CRMPs are perceived to be agency led, their effectiveness on the ground is reduced. The perceived threat of loosing local control can produce several negative reactions among landowners: They may distance themselves from CRMP activities entirely in order to maintain their autonomy and, thus, fail to gain useful information and assistance. They may adopt a “we versus they” mentality by displaying open hostility toward CRMP projects and propagating bad press. They may choose to initiate a local counter-movement which undermines CRMP effectiveness. None of these responses promote cooperation and they all increase the difficulty of successfully completing CRMP projects. If agencies want the CRMP process to work effectively, their personnel will have to assume the role of advisors and consultants at CRMP meetings, while allowing landowners to define visions, project priorities and guidelines for themselves. CRMP meeting times and locations may have to be specifically arranged to allow the broadest participation by local stakeholders.

Recommenda-tion Agencies should consider conservancies, where they exist, as important potential local partners. In order to avoid negative perceptions, agency personnel should take careful steps to insure that decision-making by both conservancies and CRMPs remain in the hands of local people, even if these decisions are not seen as the “best” in scientific terms. Agency personnel should be careful to act as advisors to these local groups and to promote the involvement of a broad base of local stakeholder support.

Section C
Landowners

What is in this section? In this section is a description of some of the demographics of non-industrial private forest landowners in California. This section also describes landowner attitudes and issues which were expressed in study workshops.

Non-industrial private forest landowners control more than one-third the forest land in California. Their impact on the productivity, safety and sustainability of the state's forests and woodlands is enormous. Thus, their attitudes toward their land and their interaction with local organizations and resource agencies must be taken seriously. While the landowners in this study do not represent a statistical sample of the landowner population, they do represent a broad cross section of Northern California landowners. They are from different geographic areas, have different occupations, and different reasons for owning their land. They do have at least three things in common: A history of involvement with resource agencies and RCDs, A sense of the importance of stewardship and responsibility for their land, and An underlying fear that their values and their practices will be usurped by agencies in pursuit of their own ends.

Landowner Demographics

Finding Our primary sources for landowner demographic information were the California data from a 1994 United States Forest Service nationwide study of forest landowners (Birch, 1996), and a 1983 University of California study of Northern California forest landowners (Romm, 1983). These two studies were in substantial agreement.

Discussion According to Birch, 34% of the forest land in California is in private (non-government) ownership. Romm found that 85% of the non-industrial private forest land in Northern California is held by non-corporate owners. Thus, most of the 345,600 forest landowners identified by Birch are of primary interest to CDF. Romm found that almost two-thirds of the owners do not reside on their forested property. Birch found that 46% of the owners of a single tract live within one mile of their forest land and 42% live more than 100 miles away. Both studies found that about two-thirds of the ownership is of parcels 10 acres or less in size. These account for approximately 4% of the NIPF land. The University of California study found that 42% of the owners had owned their land 5 years or less. For the whole state, Birch found 47% in that category. Romm found more than one-half of the owners were older than 45 years and Birch found 68% in that category. The Romm analysis indicated that four factors were the most significant indicators of their likelihood to invest in the productivity of their forest land: Owners' income levels Resident versus non-resident status Age Size of parcel "Whatever their size of ownership, owners' management of land is determined by the time and money they are able to invest and the returns they anticipate from employing them in forestry rather than in other available opportunities." (Romm, 1983).

The Romm analysis breaks investments into three types: *Basic*: Basic investments include home and road construction, fencing, fire protection, and land clearing for access. *Forestry*: Forestry investments include: site preparation and planting, thinning, harvest and land use plans. *Amenity*: Amenity investments include such things as wildlife habitat and recreational improvements. Owners tend to

make investments in this order. Very few owners who have not made basic investments invest in forestry activity, etc. Eighty-five percent of the landowners in the study had made investments at some level over the past five years.

Conclusion The substantial agreement between the studies done by Romm (1983) and Birch (1996) increases confidence in their findings. The most important indicators of investment in forest management are likely to be Owners' income levels Resident versus non-resident status Age Size of parcel Furthermore, there is a logical progression in the pattern of investment.

Recommenda-tionCDF should design policies, programs, and information formats with these factors in mind. Further research is necessary to determine a more precise relationship between these factors and landowner motivation. Specifically, the pattern of investment may relate to the stages of learning model presented in Chapter 2, beginning on page 8.

How Do Landowners Assess Themselves?

Finding Workshop participants had a strong interest in preservation, restoration, mitigation, and management topics, but were at very different levels of knowledge and motivation. While all were practicing some level of management, their efforts were influenced by their vision of the future state they desired, and by economic necessity.

Discussion Most of the owners in this study were connected to their land in a variety of ways, not necessarily timber-oriented. Since nearly all the participants in our workshops were either active in RCDs or had participated in conservation programs involving agencies, it is not surprising that they saw themselves as environmentalists, though they harbor distrust for environmental groups. Newer owners (primarily in the Northern Sierra Nevada) were actively learning about their land. Some had finished their first management activities, others were still planning them. Many participants had owned their land for a number of years and managed it for income. While there were important differences between new and long-term owners, and between owners who sought income from their holdings and those who held land for other reasons, there were several striking similarities. All participants saw the need to practice management of their property in order to create and maintain their desired outcomes from it. They were all looking for professional advice from foresters and agencies regarding management practices that would benefit their land and their goals. They expressed strong interest in practicing sound conservation to maintain productivity or to move toward their image of what their property could be. None were willing to leave their land unmanaged, though they varied widely in how much management they thought was beneficial. They are vitally concerned with their ability to use their land for purposes they believe are important and, fear the efforts of agencies and other outside groups to force them to alter those purposes. Landowners who work the land for their livelihood see themselves as resourceful people who practice sound conservation to the extent they understand the benefits of those practices and have resources to pursue them. They see themselves as part of the environment and want to sustain its ability to produce over time. They often expressed frustration at their lack of time and money to carry out specific desirable practices.

Conclusion Landowners are interested in learning about their land and practicing stewardship. Knowledge of best management practices and their economic and aesthetic benefits is important in convincing landowners to manage their property to benefit the entire ecosystem. Landowners'

willingness to learn and to practice sound management is closely related to their understanding of the positive benefits and the reduction of negative impacts they will experience as a result.

Recommenda-tion Resource agency personnel should rethink some of their basic assumptions regarding landowners. Landowners should be viewed as concerned, resourceful people who can be effective and willing partners in implementing effective ecosystem management, not merely targets of regulation and legislation. We suggest that both landowners' desire to "do the right thing" and their fear of overregulation be taken very seriously.

What Motivates Landowners to Learn?

Finding Forest landowners' motivation to learn follows the concepts outlined in Chapter 2. Specific issues that influence motivation vary by region, landowner orientation, and individual concerns. However, workshop participants and interviewees suggested several general motivation criteria. They are interested in information that increases their sense of control, gives them choices, and demonstrates a practical benefit. They want to avoid external pressure or regulation, unexpected "surprises", and costs or paperwork that produces no visible benefit to them. Outcomes must be seen as attainable, physically and financially, given their limited resources. Landowners who make a living from their land want to protect and maintain their sources of income.

Discussion Landowners are motivated both by a desire for practical benefits and a desire to avoid problems. The following points summarize the criteria that landowners we contacted say are important motivators: *Relevance* - Issues/topics must be presented in terms that are relevant to the local situation, and to their stage of learning. Express responsibilities in terms of real potential threats, for example: fire, flood, etc. This criterion might be summarized as: "Help me understand how to solve a problem, avoid a threat, or seize an opportunity. Don't expect me to help you unless I can benefit as well." *Attainable results* - Beneficial results must be seen as being attainable, physically and financially, in terms of the landowner's available resources. *Appropriate scale* - Information will not motivate unless it is seen in relation to local conditions. Graphic material (GIS, maps, etc.) should be on a scale that landowners can relate to their property to let them see how they fit into the larger scheme. *Not intimidating* - Landowners are easily intimidated by information overload. Provide material in digestible chunks. Too much technical detail at an early stage reduces motivation. Presenters with practical experience and local knowledge are more likely to motivate than technical experts. Landowners are sometimes intimidated by not knowing the right questions to ask. They are put off by technical language and jargon.

Advice - Landowners are looking for advice, not general prescriptions. They want to retain control of their land. They want to be included in the process of developing regulations and programs, and to feel able to influence the result. External regulation reduces their motivation to learn or may motivate them to resist. To motivate landowners to work together in a positive way, there needs to be a sense of place beyond their own property, a watershed, a community, a vegetation type, etc., that they have in common. Participants at all workshops indicated they would favor a watershed-, ecosystem- or community-based approach to sustainability issues as long as their ability to manage their property was not compromised. The possibility that their participation might reduce their alternatives is a definite deterrent.

Conclusion A shift from teaching hard science and good management to motivating landown-

ers to learn is needed. Three things are critical to bringing this about: Landowners must see that their viewpoints and knowledge have been considered in reporting the research or in creating the materials. Outcomes must be meaningful in terms of their lands and communities. Their stage of learning and their motivational traits must be considered when designing the materials and presentations. Before designing a program or developing training to reach them, it is important to find out what considerations would motivate them to implement a new practice, what they already know, and what is important to them, and to address them in those terms.

Recommenda-tion We suggest that more effective learning will result from taking landowner's viewpoints, learning needs, and motivation traits into consideration in the process of creating materials and presentations.

What Information Do Landowners Need?

Finding There were regional differences in topics landowners in the workshops wanted to learn more about. A few topics, however, were consistently interesting.

Discussion Eleven topics of potential interest to landowners were presented to workshop participants and ranked by a process known as "multivoting." Most of the topic descriptions were taken from a research report published by Georgia Cooperative Extension Service (Yarrow, 1995). We were made aware of the report after the Red Bluff group met, so they listed their interests more informally. Two topics were of interest in all groups: "Managing specific site conditions" ranked highest overall. "Economic incentives" was the next highest area overall. Economic incentives also ranked high in the Georgia report, which emphasizes that landowners' interest is stimulated by material that shows how management impacts their pocketbooks. The Auburn group added two topics and ranked them highest, reflecting regional differences in land use and management experience. They were Private property rights and responsibilities and Basic technical information Multi-manager partnerships received no votes in our groups and ranked low in the Georgia report. This may indicate that many landowners are not yet at a stage of learning where cooperation toward an ecosystem gain is meaningful for them. Corridors and connecting zones were seen as agency, not landowner, issues.

Focus Groups Topics Participants Want to Know More About	Red Bluff	Yreka	Auburn	Total
Managing specific site conditions	NA	9	9	18
Legal guidelines and restrictions	NA	4	4	8
Replacing or restoring a site	NA	1	4	5
Economic incentives	NA	12	5	17
Establishing corridors or connecting zones	NA	0	0	0
Monitoring/adapting new information	NA	3	1	4
Increasing public involvement/support	NA	4	1	5
Multi-manager partnerships	NA	0	0	0
Identifying support organizations	NA	3	5	8
Basic technical information	NA	NA	10	10
Private property rights and responsibilities (trespass)	NA	NA	12	12
Total	NA	36	51	87

Conclusions The voting in these groups backs up the often repeated comments that landowners

look for, and miss having, the assistance of a technical professional to answer their questions regarding specific issues on their land. In all groups, getting answers to their specific questions appeared to be more important than learning the theory of management. The north state groups consisted mainly of farmers and ranchers who make a living from their land. These groups appear to have a good deal of basic information and a greater interest in economic issues. They were, perhaps, also more aware of the need to communicate their efforts to the general public. The Auburn group had more owners who did not make a living from their land and who were newer owners, thus, their interest in basic technical information and their lower ranking for public involvement and support. Since these samples are both small and biased, the results should be taken as indications of the need for further research into landowner interests and motivation on a regional basis. They also may indicate a shift in interest based on stages of learning.

Recommanda- tions A statement in the Georgia report expresses our recommendations regarding landowner information needs: "Respondents have noted clear distinctions in areas they wish to learn more about and ways they prefer to receive their information….by beginning this process as astute listeners to our constituents, we might better tailor our methods and approaches to fit more closely to the needs of those we serve." Thus, our recommendation is to develop formal feedback systems that enable agencies to listen to landowners' needs and preferences and respond accordingly.

What Sources of Information Do Landowners Prefer?

Finding A multivoting technique was used to allow workshop participants to rank preferences for sources of information. Topics were adapted from those used in a Utah State University survey (Kuhns, 1997). Regional variation based on length of tenure and land use seem to predominate. Advice from an agency representative ranked highest overall. Bulletins, brochures, and fact sheets ranked high in our study and highest in the Utah study. A surprising finding was the high ratinggiven to local newspaper and magazine articles in both studies.

Discussion Regional differences predominated. With the exception that all groups welcomed bulletins and brochures, there was no general agreement regarding delivery methods. Demonstrations and field trips were more important to the newer owners in the Auburn group than to the more established north state owners. Advice from a private forester was added by the Yreka group and ranked high by the Auburn group.

Focus Groups Preferred Ways of Getting Information	Red Bluff	Yreka	Auburn	Total
Newspaper or magazine articles	6	3	7	16
Public or cable television programs	0	0	2	2
Classes or textbooks	1	1	1	3
Library books	1	0	0	1
Bulletins, brochures, or fact sheets	9	4	8	21
Advice from friends and relatives	3	4	0	7
Advice from a local agency representative	3	10	14	27
Advice from college specialists	2	0	1	3
Watching what neighbors are doing	3	5	3	11
Demonstrations and field trips	5	2	15	22
Technical assistance from a private forester	NA	4	10	14
Trial and error	NA	5	NA	5
Total	33	38	61	132

Conclusions The most important finding from this question was that a wide variety of sources must be employed to inform landowners. Traditional methods such as classes were not the most interesting to these participants. Individual advice, whether from an agency or private professional ranked high. However, the low score for college specialists may indicate that academicians are perceived (either correctly or incorrectly) to have theoretical knowledge rather than practical experience.

Recommenda- tions Agencies should use a variety of delivery channels to reach landowners. Local newspapers and regional publications that reach broad segments of the local population should be used as channels for disseminating Stage 1 information. At all Stages of Leaning, no one distribution method is best, however, Chapter 2, Section B, beginning on page 16, does provide some stage-by-stage options. The emphasis in presenting the material should be on informing landowners rather than teaching technical information. Because the samples in this study were small and biased, further research should be conducted to refine these findings. Regional experiments may indicate that some distribution channels are more effective in a given region. In particular, experiments using Plackett-Burman experimental designs may be useful. (Koselka, 1996) and (Wheeler, 1990)

What Does "Watershed" Mean to Landowners?

Finding The term "watershed" is not meaningful to landowners. It is not well-defined and most landowners do not relate the term to the location of their property.

Discussion We have seen several attempts at specific definitions of the term "watershed." Unfortunately, these definitions tend to use scientific terms, not meaningful to the lay public. The term "watershed" is seen as primarily a regulatory concept used by agencies, a catch-phrase to replace the term "ecosystem." The term is not well understood by local people; it may not be clearly understood by agencies. For most landowners, watershed is not a "place." Landowners do not view their property on the basis of its location in a watershed and often do not know the name of the watershed in which it is located. The term is vague; it could be a small stream or the Sacramento River basin. Some participants related to the area immediately adjacent to a body of water, others related it to a particular drainage. For urbanites, "watershed" is somewhere other than where they live. Thus, watershed decisions don't apply to them personally, only to their aesthetic or recreational values. They tend to apply their values to other people's property and other people's resources. It is sometimes not clear if ground water is included in the definition of the term watershed. One participant summarized the discussion by asking, "Why should landowners *want* to know what a watershed is?"

Conclusion In order to be of use in communications with landowners, more descriptive definitions of "watersheds" of various sizes will be needed. They should be worded in terms that are meaningful to residents. Participants felt that if agencies want "watershed" to be a meaningful term, they will have to treat watersheds as real places. If they coordinated the cumulative impacts on a whole watershed and spared individual landowners the cost of researching and reporting cumulative impacts for every project they did, the term would gain meaning.

Recommenda-tion Resource agencies should develop a set of consistent definitions that landowners find meaningful and implement their strategies and programs based on those definitions. Unless this is done, the term watershed will continue to cause more confusion than enlightenment.

What About New and Non-Resident Landowners?

Finding Non-resident landowners represent one-half or more of non-industrial private forest landowners (NIPFs) in California. Landowners who have owned their land less than 5 years represent almost 50 percent of landowners. Workshop participants had difficulty generalizing about the motives and attitudes of both new and nonresident landowners.

Discussion Participants found it difficult to characterize new owners and their knowledge and interest levels. Each group offered several generalizations which could be investigated further regarding new owners' knowledge and goals. New owners often do not understand the stewardship implications and management responsibilities that come with their purchase. They are often surprised at the complexities involved when they try to make use of their land. Their goals for their land vary from doing nothing to an active concern, sometimes stronger than long-time owners. They may be more open to suggestions regarding land management than long-time owners. They are often at a loss to know where to go for information and advice. They may be reluctant to come to an agency for fear of expensive fees or red tape.

Participants thought new owners could be reached most effectively by contact with knowledgeable local landowners. Two contact strategies were suggested: Invitational mailings from local RCDs may be a non-threatening way of making new owners aware of useful information sources. Land purchase information could be obtained by checking the files of the county assessor. Mailings might include an invitation to a social gathering for new owners or a workshop to introduce management issues. A corps of volunteer ambassadors might take on the task of calling on new owners to raise issues such as fuels management and explain the implications for new owners. Introductory literature could be left with new owners at that time. Non-resident owners were also difficult to characterize, though several anecdotes were offered regarding their motivation. They might be reached through informational mailings from local RCDs and by contact with neighbors when they visit their land.

Conclusion The stages of learning and the motivational traits of new and non-resident landowners are not well understood. Better understanding of these groups and the factors that are significant in reaching them will require additional research. Since these groups constitute a large percentage of Californian forest landowners, developing more effective ways of reaching them will be critical to producing watershed or ecosystem benefits on the ground.

Recommenda-tion Agencies should include new and non-resident landowners in their planning. Agencies should conduct further research on the characteristics of new and non-resident landowners to find effective ways of reaching them.

Chapter 4
Relationships Among
Resource Agencies, RCDs, and Landowners

What is in this chapter? This chapter explores findings about relationships among resource agencies, RCDs, and landowners. This chapter provides information that is closely tied to the previous chapter which explored these entities individually.

This chapter contains the following sections: The Resource Agency - RCD Relationship Section A The Resource Agency - Landowner Relationship Section B The RCD - Landowner Relationship Section C

Section A
The Resource Agency – RCD Relationship

What is in this section? This section presents findings regarding participants' perceptions of what RCDs need from resource agencies in order to be effective at the local level.

RCDs Need Agency Cooperation.

Finding "Local cooperative, consensus-building groups [such as RCDs] are the best means of obtaining long-term success and for developing watershed plans as a strategy for treating problem causes (not just symptoms) and setting local priorities." (Outreach Working Group, 1996) This finding from an unpublished study for the Coastal Salmon Initiative exactly mirrors the finding in this study.

Discussion Participants would like the local RCDs to become hubs for information flow, planning, and implementation. They believe RCDs can be more effective in producing positive, timely results than agency regulation and enforcement. To achieve this relationship will require resource agencies to work cooperatively with each other and with RCDs at the local level. Agencies will need to become more candid and accessible about their plans and strategies. RCDs and conservancies check carefully to insure that agency requests and cost sharing proposals do not have unwanted restrictions or strings attached. If they perceive such strings or restrictions, they may decide not to participate. Agency efforts at partnering with RCDs should include evidence that such cooperation will benefit RCDs as well as agencies, and that it will not erode their local autonomy. RCDs may be reluctant to compete with each other for agency grants. Competitive grants may not be the most effective method of funding RCD partnership activities.

RCDs would like to see more cooperation from Federal and State resource agencies to implement projects or respond to emergencies. Reduce red tape and increase autonomy to act in order to speed responses in time-critical situations. Make equipment available for worthwhile projects. Make

cooperative plans to fight fires before they happen. In order for cooperation to be effective, RCDs should also keep agencies informed of what they are doing and planning.

Conclusion Direct, cooperative agency involvement at all levels with local RCDs should be expanded and improved. Agency administrators (and sometimes local representatives) are seen by participants as having an "arms-length" approach to local needs. In order to develop more effective cooperation, these perceptions will have to be changed. Partnering with RCDs requires that agencies take local priorities seriously and give them attention in order to create smoother, faster, and more trusting interactions.

Recommenda-tion Agency policies must be responsive to local needs as well as agency mandates. A regional approach to policy making should be implemented. Agency leaders should make clear to local personnel the importance of cooperation with local RCDs . Local staff should view themselves as advisors and resource people, working toward common ends with RCDs.

RCDs Need Clear Lines of Communication to Agencies.

Finding RCDs need better access to agency information sources and clear paths through the bureaucratic maze. They need ways to reach individuals who can respond to their concerns and supply answers quickly. They also need channels for making their concerns, plans, and projects known within agencies.

Discussion In every group, the first response to the question, "How could agencies support local RCDs?" was that they could supply accurate information for the RCDs to distribute to landowners. RCDs are perceived to be left out of the information loop. This lack of information reduces their credibility and effectiveness with local landowners. Participants saw a need for an open communications channel between resource agencies and RCDs for both technical and policy information. Agency information should be well organized and readily accessible. More common English and fewer obscure technical and jargon terms should be used.

A strategy is needed for referring questions from local agency offices to RCD offices. The RCDs in all groups and some of the landowners were aware of the 800 number for forestry information. It was praised in all groups. Participants would like to see this service expanded to include the following types of information from more agencies: Current agency points-of-contact: A current list of agency personnel for RCDs to contact for information was seen as vital. Participants were frustrated by not knowing whom to contact. Information about agency policy, policy changes, strategy, and project outcomes to pass on to landowners. Detailed information regarding agency requirements for doing projects and obtaining permits. Accurate information regarding funding and cost-share programs, including their requirements and benefits in an easy-to-use format. Scientific and technical data: RCDs need access to the data that agencies have developed, particularly data that may be useful for decision-making. A method of bringing local concerns and responses to agency's attention. RCD members were concerned that agency contact information would become out-of-date and wanted to know how it would be kept current. There was a clear desire for information flow to be two-directional. Currently agency policies and programs come down from the top. Local knowledge and experience appears to be largely ignored.

Conclusion RCDs are eager to use resources available from the agencies, but need easier

access to and a better understanding of what is available.

Recommenda-tion Each agency should formally examine its accessibility from the point of view of an RCD trying to obtain information. Each agency should then act upon the findings of its examination to supply timely and accurate technical, program and, contact information.

RCDs Need Watershed Analysis.

Finding RCDs often lack scientific data on which to base long range plans. For many RCDs, acquiring this information and keeping it current involves substantial expenditures of resources and time. Without this scientific base, it becomes difficult to plan effectively and to gain the local support necessary to implement plans. Local RCDs could provide valuable assistance to agencies by improving the accuracy of data by validating them on the ground.

Discussion Many RCDs need help with watershed analysis. Either the documentation that exists is out-of-date or there is no comprehensive local documentation. Development of a comprehensive analysis for their watershed(s) would be extremely helpful in developing an objective basis for planning. There is often a lack of technical or financial resources to bring it about. Agencies appear to have more resources, may have a mandate to do analysis on adjoining land, or may have already done some of the work. (RCDs could help agencies increase the accuracy of the analysis by verifying research data.) Data needs include: Accurate soil surveys and vegetation maps of their watersheds on a scale that would be relevant to landowners Water flow, water temperature, water quality, water consumption data and information about the contribution different vegetation makes. (When the data exist, they are difficult to obtain from agencies.) Cumulative impact analyses done by agencies or landowners (such as part of timber harvest plans) Habitats and ranges of species in their watershed(s). Agency or university research that describes conditions within their boundaries or makes recommendations about its use..

Conclusion This is an area of potential benefit both to RCDs and resource agencies. RCDs would benefit from landscape and GIS mapping of their watersheds, if this information were made available at scales that could be understood by landowners. Their ability to plan effectively and to gain local support could increase. Agencies would benefit from the increased accuracy of their descriptions.

Recommenda-tion We recommend that each RCD examine the validity of descriptive data regarding resources within its boundaries. We suggest that a cooperative exchange be developed to assist RCDs in acquiring these data, including a feedback mechanism for increasing their validity.

Section B
The Resource Agency – Landowner Relationship

What is in this section? This section presents findings regarding landowner attitudes about their relationships with resource agencies, and participants' suggestions for improving them.

What is the Relationship Between Agencies and Landowners?

Finding The relationship between landowners and state agencies is seen as having changed from being helpful to landowners to restricting landowners through tighter regulation and reduced assistance. Participants expressed ambivalence and sometimes open hostility toward agency policies and representatives.

Discussion In the past, agencies primarily provided technical assistance to landowners. Now they deal mainly with restrictions or administrative procedures. Many agency representatives are not technical advisors, don't have practical experience, and don't relate well with landowners. Participants report feeling a lack of one-on-one contact to assist their land management efforts. Participants view increased regulation as a method agencies use to keep their staffs from being cut. They see that service forester budgets cannot be justified; however, inspectors are justified to enforce compliance with regulations. There was a perception that agency people see themselves as smarter than local landowners. They feel that agency personnel sometimes "talk down" to them. When landowners have this perception, they tend to resist information the agency people bring, even if the information might be to their benefit.

There was a feeling that agencies sometimes settle on positions or problem solutions without examining the range of possible alternatives. The sense was that agency supervisors sometimes made decisions that were not optimal because they lacked local experience and did not call on the knowledge of local people. This sometimes caused them to take positions that were opposed by local landowners. Participants saw some agency approaches to problems as short-sighted, not most beneficial, and sometimes harmful to their use of the land. Examples include Fuel reduction only through burning Seeding only annual rye grass, not perennial grasses Chaining to clear hardwood stands as opposed to selective cutting Unmanaged riparian growth which contributed to stream flooding On the other hand, they saw agencies as potentially very valuable when they advise, suggest, educate, and demonstrate, while allowing landowners to reach the final decisions for themselves. Participants thought agencies could increase their effectiveness by becoming more sensitive to local landowner and community priorities and by acting cooperatively, not dictating requirements. Workshop participants see agency personnel at all levels as needing practical experience, not just college training, in order to be effective. Agencies need positive visibility in the local communities in order to gain acceptance and trust. Their local personnel need to become more involved, as agency representatives, in gatherings and activities to benefit the communities they serve.

Conclusion To landowners, local agency personnel *are* the agency. It is important for local agency personnel to build rapport with landowners. Local agency personnel need the benefit of agency policies and practices that make building rapport easier. Participants rapport building suggestions are listed in the recommendations for this section and the following section, on pages 52 and 54.

Recommenda-tion Consider the following landowner suggestions and implement those that are feasible: Use an apprentice program to acquaint new agency people with the area and with knowledgeable local people before they assume decision making roles. Do interagency "in-service" training at all levels using "what if" scenarios drawn from actual situations in order to improve interagency understanding and cooperation. Train local personnel in "big picture" management practices and help them understand the value of these practices for their area of specialty. For example, practice Fuel suppression, not just fire fighting Coordinated planning, not just disaster response Teach local personnel skills for dealing cooperatively and effectively with landowners, including "listening skills." Bring local agency people and landowners together to find ways to reduce response time and "red tape" in time critical situations. Reduce the cost and paperwork requirements of the permit process. Pass some control or tracking functions to local agency personnel and RCDs. Support the involvement of local agency personnel, as agency representatives, in gatherings and activities that benefit the community they serve.

What Do Landowners Believe About Regulation and Agency Motives?

Finding In every workshop, the participants were concerned about the effect of regulation on their freedom to pursue their goals. There was a strong underlying fear that they would be overwhelmed by government overregulation and agency policy. Participants considered the threat of legislative/agency restrictions and punitive policies to be more threatening to their use of the land than natural disasters such as fire, disease, or insect damage.

Discussion There is widespread suspicion that agencies operate in opposition to the best interest of landowners. The intensity of the fear seemed strongest in the north state and less strong in the Northern Sierra, but was clearly present in all cases. There is some evidence that these feelings could be related to a sense of physical isolation from the centers of political power and population in the state. There is more evidence that they may be connected with length of property ownership and whether the property provides the owner with a living. Even among owners who made a living from the land, the sense of fear seemed more pronounced in those who had been on the same land or in the same area for generations than those who were relatively new.

Participants, large and small, new and long-term owners, tended to believe that agency and governmental restrictions are based on the belief that landowners are inherently stupid or dishonest, that Registered Professional Foresters are suspect, and that the agency's field personnel are untrustworthy. Participants believe the intelligence and honesty of all these people are not respected and that regulations are absolutely fixed in concrete in order to protect the environment from them. Regulations are seen as unfunded mandates with which landowners are forced to comply even if they don't have the money or resources. They feel they are being punished by regulation rather than compensated or acknowledged for the measures they do take to benefit their land. Federal agencies were seen as more difficult to deal with than State agencies because they appear not to apply the same management requirements to their own land that they apply to private land. There appears to be a double standard. Horror stories were related in several groups about hazards to neighboring private holdings caused by Federal land practices. When landowners suggested that a particular project could be damaging to their own or other surrounding land, they were ignored or rebuffed. There were expressions of landowner outrage and resentment about arbitrary Federal practices in every group. Landowners do not clearly understand agency motivation, so they become

concerned that if they do anything to benefit their use of the land, some agency will find a way to punish them for it. Asking for help from one agency brings with it the threat of punitive steps by other agencies.

Conclusion There is a perception that there has been a massive shift in resource agency's attitudes regarding their roles and their relationships with landowners, from assistance to regulation, from working with local people to administering policies. Workshop participants were disturbed by the lack of common focus among agencies. Overall coordination between agencies was seen as a big hole. They were fearful of involvement even with agency personnel they trusted because it might create an opening for other agencies they distrusted. Mandates and requirements appear to be imposed without indicating their benefit to landowners and local communities and without local involvement, leaving landowners feeling helpless. In many cases, they feel they also are an endangered species.

Recommendation Clearly, agency policy and strategy must become more sensitive to landowner perspectives. Shifts will have to take place at a number of levels. Here are some of the areas that may require agency attention: Work to reduce the incompatibility between the natural ecology and the social ecology of people who live on the land. Address the entire ecosystem, including local residents, in agency strategy and goals. Develop and maintain communication channels with local groups and residents to create a continuous flow of information in both directions. Establish partnerships with RCDs as intermediaries to soften the inherent distrust landowners have for agencies. Make it an agency goal to reduce the paperwork and cost requirements for doing small projects to make them more economically possible. Focus on "win-win" programs that benefit both natural resources and landowner goals. Address issues that concern communities to get local buy-in and cooperation. Develop communication methods that speak to landowners in terms that are meaningful to them. Train local agency personnel as advisors and educators. Provide them with technical and communication tools. Realize that it will take time and patient effort on the part of resource agencies to reduce the level of landowner fear and distrust.

What Are the Unintended Effects of Regulation and Management Practice?

Finding Workshop participants believed that the time and expense of complying with regulatory requirements have the unintended effects of promoting poor management practices.

Discussion Participants believe that excessive regulatory requirements tend to generate bad management practices of three types: The paperwork is too confusing and too involved, so landowners choose not to engage in management practices at all, or Since it is so costly to comply, they try to maximize their return by doing more than would be optimal for sustainability, or Incompatibilities between agency requirements lead landowners to ignore agencies altogether.

To paraphrase one participant: If more than five agencies are involved, the landowner will probably do it at night and not consult the agencies. Another participant in a different group said: "If they would assist the landowner in doing the right thing, he would do the right thing. What they do is come up with regulations that are punitive, that force the landowner to do the wrong thing." The old Soil Conservation Service was a positive model for many participants. Here are some of the views expressed regarding SCS: Instead of regulation, it offered technical assistance. From the government

viewpoint, it showed how to reduce soil erosion; from the landowner viewpoint, it showed how to save money and make more money. It didn't require regulation and it got good things done. It worked in cooperation with landowners, so they had a stake in the outcome. It had a clear objective: stop erosion. One participant said, "When I look at CDF, from the forest management side, its not clear what they want to do. Regulatory agencies should think about conceptually emulating what [the Soil Conservation Service] did."

Conclusion The unintended outcomes of over regulation were evident in all areas we studied and were also mentioned in the Coastal Salmon Initiative report. (Outreach Working Group, 1996) The chief concerns are the Uncertain and possibly prohibitive cost of compliance Quantity and complexity of paperwork requirements Possibility of legal action by one agency for work that is in compliance with another agency's requirements Excessive regulation is counterproductive. Working cooperatively with landowners to plan projects would increase participation and reduce landowner objections. It would generate wiser decisions for the entire ecosystem.

Recommenda-tion In order to promote best management practices, agencies should make it a goal to make their requirements clear and understandable for a given project, to consolidate and reduce paperwork, and to work together to reduce inconsistencies in requirements between agencies.

Section C
The RCD – Landowner Relationship

What is in this section? This section presents the views of workshop participants regarding the relationship between RCDs and local landowners, and suggestions for improving and expanding the role of RCDs within their locality.

What is the Relationship Between RCDs and Landowners?

Finding Workshop participants had very favorable attitudes toward RCDs, and believed they were well-regarded by landowners who have been involved with them. However, no more than 10% of rural landowners were involved with RCDs. Among landowners *who are not familiar with them*, RCDs are often regarded with the same suspicion landowners feel toward government agencies.

Discussion RCDs are not well understood by the majority of people within their boundaries. Only a small portion of the population recognizes the benefits they produce. They do not use coercive approaches to force landowners to do something they are unwilling to do. Instead, they use education and peer pressure to persuade landowners of the value of desired management practices. RCD members expect to be in the community for a long time and know they will have many opportunities to contact landowners. They can't afford to alienate them. RCD methods and goals are often not distinguished from "government" by landowners who are not familiar with them. The question "What concerns landowners about working with RCDs?" always led to expressions of concern about government restriction of landowner rights and prerogatives. Even participants who were involved with RCDs expressed fear that agencies might use them to gain regulatory advantages. RCDs have to

prove their independence from agency domination to suspicious landowners by making it clear that directors and staff are local people who can be trusted not to impose restrictions or "surprises" on owners. This is an on-going process.

Some RCD directors worry that their involvement may create a negative image of them among other landowners. These negative perceptions may, in part, account for the difficulty RCDs have in finding volunteers willing to accept positions as RCD Directors, though the reasons given usually relate to the time commitments and expenses involved, or to candidate's employers concerns about possible legal liability. RCDs have quietly gone about the business of coordinating projects, obtaining funding, and negotiating with agency regulators. In the process the RCDs have shunned fanfare and controversy to avoid unwanted attention from government regulators. This has had the side effect of giving them low visibility with landowners and local communities. The good work they do to increase productivity and reduce hazards, and their mediation between agency regulators and landowners, are often not recognized by the local community.

Conclusion To increase their effectiveness, RCDs must maintain their autonomy and protect and build their positive reputation among landowners and local residents. This will involve keeping local residents aware of their achievements and enlisting support for their activities. They may find it difficult to increase their base of local support because of RCD members' tendency to think of their work as community service and not to "blow their own horn" or to promote themselves. Without a broad base of local support, RCDs will have to struggle for acceptance with each project they do. With such support, projects will build on the good will from previous projects. They will benefit from being recognized as representatives of a broad base of landowners.

Recommenda-tion Since local support is essential to making their efforts politically possible, RCDs may have to make community outreach a priority goal, as important as their other goals. This may involve Getting local newspaper coverage of their achievements, Making the benefits of their activities clear to local landowner groups such as the Farm Bureau and homeowner's associations, and Keeping local legislators informed of the community-wide benefits of their activities. State agencies must respect RCDs as independent representatives of landowners and avoid taking any action that could be interpreted as an attempt to use RCDs as agents of their own agenda.

How Can the Effectiveness of RCDs be Increased?

Finding For many of the same reasons mentioned in the previous section, RCDs have not been as effective as they could be in increasing their visibility among key decision-makers and politicians outside their local area. This has had an impact on their ability to obtain funding for a wider range of activities and to influence legislation that directly affects them.

Discussion Participants in every group expressed the need to bring local issues and RCD activities to the attention of a wider range of decision-makers. As one participant put it, "RCDs need help to create a way of educating urban people about how well we manage the land and turn around the negative perceptions, because the political power resides in the urban areas." Another participant from a different workshop commented that most legislators come from urban areas and don't understand the impact of these laws on rural people. There is so much distrust that something reasonable may never see the light of day. RCDs have focused primarily on their own areas and not given much attention to creating a positive image of their efforts at the regional or state level.

Conclusion Participants saw a profound lack of understanding of local issues on the part of urban residents and their representatives. This lack of understanding affects both the outlook of urban residents and legislative proposals made by urban legislators. RCDs could play a more effective role in creating a balanced picture of resource issues in parts of the state where the majority of the population reside. It will be important to create a regular flow of information to both these groups to demonstrate the importance of rural issues and to make RCD perspectives understood.

Recommenda-tion RCDs should take a more active role in educating urban residents and urban legislators about their conservation efforts and plans, and clearly show the connections between what they are doing and urban needs and values. They could demonstrate these connections in terms urban people can understand and clearly show them in terms of Aesthetic and recreational values Water quality and quantity Habitat protection and restoration Practices to enhance the health of forests and ecosystems Rural RCDs, perhaps in conjunction with CARCD and urban RCDs, should find ways to clearly present issues, plans, and accomplishments in terms that are meaningful to urban dwellers and their representatives. In particular, the interconnectedness of water, timber, aesthetic and recreational needs should be made clear on an on-going basis. RCDs should make regular reports to legislative groups and district government agencies informing them of RCD activities and plans, and the benefits they provide to their constituencies. (Regular reports, not tied to funding requests, might also make future funding requests more politically possible.)

Chapter 5

Closing Thoughts

A Substitute for Money? Government agencies everywhere are faced with a significant problem – not enough money to accomplish their mission the way they once did. Lack of money has a way of focusing attention on new possibilities. One is reminded of a quote by the famous physicist, Ernest Rutherford (1871 – 1937), who, when denied funding, said, "We haven't got the money, so we've got to think." Perhaps this report will contribute to the reservoir of ideas to think about.

Ideas don't spread just because they are "good" ideas. Promoting effective, sustainable, forest practices is not merely an exercise in teaching good science. It is a social challenge. In his book *Thought Contagion*, Aaron Lynch (1996) examines how beliefs spread through society. He suggests that people do not accumulate ideas; rather, ideas accumulate people. Ideas do not spread just because they are "good" ideas. They spread because there is an effective propagation mechanism. Regardless of how "good" the idea or practice, forest management will not spread rapidly unless people are willing "hosts" for the idea.

"Moments of Truth" It is important to realize that in each and every contact a citizen has with a government agency, there is a "moment of truth." Paraphrasing Albrecht (1985) and Carlzon (1987), a "moment of truth" is any episode in which a citizen comes into contact with any aspect of an organization, *however remote*, and thereby has an opportunity to form an impression. A "moment of truth" happens with every telephone call, letter, and face-to-face contact. It happens when a landowner looks for a parking spot when she visits an agency. Moments of truth are as powerful as they are ubiquitous.

So what? Combining the idea of a "thought contagion" with the idea of "moments of truth," it seems almost obvious that the way to promote the spread of desirable management practices is by creating favorable moments of truth. Favorable moments of truth occur in the presence of mutual respect, willingness to listen, and a system designed to be responsive to the needs of the citizen (landowner). The ideas in this report contribute to the creation of favorable "moments of truth."

Using the Stages of Learning Using the stages of learning model could be very effective in improving an agency's communication strategies. There seems to be much material suitable for landowners who are ready to engage in forest management practices. There seems to be little material directed toward Stage 1 landowners, who don't understand those practices or the theory behind them. Agencies must embrace a continuous marketing approach to reach the Stage 1 landowners.

Using Motivation Traits Understanding an audience's motivation traits will help to present the material in terms that the audience does not have to struggle to understand. The potential benefits in interactions between agency personnel and landowners are great. These concepts, simple in theory, are difficult to execute and will require training and practice to implement.

Regulation vs Respect It seems clear that regulating landowners into compliance with forest practice principles is ineffective and costly. It would be much more effective for them to choose to comply because they see it in their best interest to do so. Bringing them to that point is an education process based on mutual understanding, trust and respect. Workshop participants clearly indicated that landowners more often feel misunderstood, distrusted, and not respected. That feeling must change if "best management" practices are to make much headway. Agency policy, tactics, and implementa-

tion will all have to be reformulated to make that happen.

Listening: An Important Tool In the course of this study, we spent many hours listening to landowners. We recommend listening as a tool for changing agency perceptions and, even more, for creating a similar response in the speakers. We heard many negative accounts of agency practices and these will have to be listened to because they carry the seeds of positive change on the agency's part. We also heard a clear desire for help in doing the right practices. Landowners are looking for sustainable practices, cost effective methods, and knowledgeable assistance. They are trying to avoid restrictive regulation and punishment. These desires need to be understood and nurtured, not obstructed.

Taking the Initiative Creating viable partnerships with local groups will require reaching out to them. The current process of waiting until they call or make a proposal is not effective. CDF should work to find out the needs of RCDs and other local groups in woodland areas, and then find ways to meet those needs. A little help of the right sort at the right time is more effective than simply creating another program or handing out money.

The Terminology Problem Agency terminology has become so loosely defined and jargon filled that it caused laughter in several workshops. This will have to be changed to plain English that is understood by non-technical people. Shortcuts and acronyms are useful when dealing with other agency people; they are massive obstructions when dealing with landowners. The people who have to be reached in order to make forest management work on the ground are not in the agencies; they are the landowners.

Agencies Working Together Agency personnel will have to take part in a continuous process of learning to listen. Listening to each other and learning to hear what landowners, who ultimately will do ecosystem management (or not), are saying is crucial. There are several useful suggestions listed in Chapter 4, Section B (pages 52 and 54), regarding policies and practices that agencies could implement to make this happen. **If agencies are clear about the need to change the way they address landowners and each other, real progress is possible**.

The forestry profession is urged "to overcome the presumption that resource management is a technical issue, not a social understanding."

Jones, Luloff, Finley, 1995

"Only if NIPF owners are included in the decision-making process and agree that the ecosystem management goals are realistic and attainable will strides be taken."

Kuhns, Brunson, and Roberts. 1997

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